

V. *Descriptions of new species of Bees belonging to the genus Nomia of Latreille.* By FREDERICK SMITH.

[Read 15th March, 1875.]

UPWARDS of twenty years ago a monograph of this genus was in preparation by Professor Westwood; circumstances have retarded its completion; several species in the National Collection were at that time described, the manuscript names being published in the British Museum Catalogue of Hymenopterous Insects in 1853; since that time several of the species have been described by myself in the series of papers descriptive of the *Hymenoptera* of the Eastern Archipelago, which were published in the Proceedings of the Linnean Society. In this paper thirty-eight species are described, and seven in the paper on Indian *Hymenoptera*, making a total of forty-five. The species, the types of which are in the National Collection, are distinguished by the prefix of a *. Figures of the legs of the males of the two most common European species are given, one being that of the type of the genus; the synonymy of those species is also added. All the figures of the posterior legs of the males represent them as when viewed exteriorly; consequently, in some instances, spines on their inner margin are not visible. All sizes of the species are given in French lines.

Nomia diversipes. (Pl. II. fig. 1, ♂.)

Nomia diversipes, Latr. Gen. Crust. et Ins. iv. 155, ♂; Oliv. Encycl. Méth. vii. 376; St. Farg. Hym. Hist. Nat. des Ins. ii. 293, ♂. (Type.)

Nomia humeralis, Duf. Ann. Soc. Ent. Fr. viii. 584; Costa, Faun. del Reg. di Napoli, Hym. i. 6, tab. xxxi. fig. 2, ♂, tab. 31 a, fig. 1, ♀.

Hab.—France; Italy.

Nomia difformis. (Pl. II. fig. 2, ♂.)

Lasius difformis, Panz. Faun. Ins. Germ., Fas. 89, tab. 15, ♂; Jurine, Hym. 238.

Nomia difformis, Latr. Gen. Crust. et Ins. iv. 155, ♂; Eversm. Bull. Mose. xxv. 11; Schenck, Die Bienen Nassau, 397.

Andrena humeralis, Jurine, Hym. pl. 14, fig. 6, ♀?

Nomia monstrosa, Costa, Faun. del Reg. di Napoli, Hym. i. tab. xxxi. fig. 1, ♂.

Hab.—France; Italy; Germany; S. Russia.

*1. *Nomia capitata*.

Male.—Length $2\frac{1}{4}$ lines. Black: head wider than the thorax; legs pale ferruginous; abdomen with pubescent fasciæ. Head: the mandibles and flagellum of the antennæ pale ferruginous, the former rufo-piceous at their apex; the front covered with short, pale-fulvous pubescence. Thorax: a little fulvous pubescence on the scutellum, that on the sides of the metathorax, beneath, and on the legs, is cinereous; wings hyaline and splendidly iridescent, the tegulæ and nervures rufo-testaceous. Abdomen: narrowed towards its base, closely and finely punctured; the margins of the segments depressed; the apical margins of all the segments with fasciæ of pale fulvous pubescence.

Hab.—Northern India.

In this small species the posterior femora are not swollen, and the tibiæ are not wider than the first joint of the tarsi.

*2. *Nomia clypeata*. (Pl. II. fig. 18, ♂.)

Male.—Length $3\frac{1}{2}$ lines. Black: the flagellum of the antennæ, the mandibles, apex of the clypeus, ferruginous; the abdomen with pale fulvous pubescent fasciæ. The face, below the insertion of the antennæ, covered with dense silvery-white pubescence. Thorax: the mesothorax closely and finely punctured, and with short, pale-fulvous pubescence, that on the post-scutellum being white; on the sides, and also beneath it, is cinereous; the legs rufo-piceous, with short glittering cinereous pubescence above; the posterior femora swollen, not greatly so, the tibiæ dilated to their apex; wings hyaline and iridescent, the

nervures rufo-testaceous; the tegulæ testaceous, palest at their outer margins. Abdomen: very closely and finely punctured; a pale-fulvous fascia on the apical margins of all the segments.

Hab.—India.

In the unique example of this species the fascia of the basal segment only remains at the sides; it is most probably abraded in the middle.

*3. *Nomia basalis*.

Female.—Length 4 lines. Black, with the flagellum of the antennæ and the legs ferruginous. Head: the front with silvery-white pubescence; the scape of the antennæ rufo-piceous, the mandibles ferruginous at their apex; the clypeus coarsely punctured. Thorax: the mesothorax with large, somewhat distant punctures; the sides of the prothorax, a line at the apical margin of the mesothorax, the post-scutellum, and sides of the metathorax, with short white tomentose pubescence; the legs have a glittering silvery-white pubescence; wings hyaline, faintly clouded at their apical margins, the nervures rufo-testaceous; the tegulæ large, pale testaceous, and more or less rufo-fuscous at their inner margins anteriorly. Abdomen short and ovate; the basal segment closely and deeply punctured; the basal margins of the second and third segments with fascia of white pubescence; a narrow, pale-yellowish fascia, not pubescent, on the third segment near its apical margin; rufo-testaceous beneath.

Hab.—India.

*4. *Nomia fervida*. (Pl. II. fig. 12, ♂.)

Male.—Length 4 lines. Black: the legs pale yellow, with rufo-fuscous markings; abdomen with fine pale yellowish-white fasciæ. Head: the face covered with bright pale-golden pubescence; the antennæ pale fulvous beneath. Thorax: the mesothorax very finely and closely punctured, its margins, as well as the post-scutellum, with yellowish-white tomentum; the coxæ, trochanters and base of the intermediate and posterior femora rufo-fuscous, a spot of the same colour on the outside of the posterior tibiæ; the posterior femora greatly swollen, and with a tooth on the inferior margin near their apex; the tibiæ greatly dilated at their apex. The apical margins of the

segments of the abdomen pale testaceous, and covered with yellowish-white tomentum. Wings hyaline, faintly clouded at their apex, the nervures rufo-testaceous, with their tegulae pale.

Hab.—India (the Deccan).

5. *Nomia combusta*. (Pl. II. fig. 9, ♂.)

Male.—Length $4\frac{1}{2}$ lines. Black: the face with golden pubescence; the legs and antennae pale ferruginous; the tarsi yellowish. The anterior margin of the thorax and the post-scutellum with yellowish-white tomentum; that on the scutellum, lateral and posterior margin of the mesothorax is fulvous; wings fulvo-hyaline, the nervures rufo-testaceous; their apical margins faintly clouded; the posterior femora much swollen, and with a minute tooth beneath; the tibiae much dilated at their apex, and produced into an acute process. Abdomen narrowed to its base; the apical margins of the segments with pale-fulvous, rather broad pubescent fasciae.

Hab.—Bombay.

This species is remarkable in having its anterior tarsi fringed behind with bright pale-fulvous pubescence.

6. *Nomia pilipes*.

Female.—Length $3\frac{3}{4}$ lines. Head and thorax black; abdomen ferruginous. Head, thorax and legs densely clothed with short cinereous pubescence, that on the thorax above is ochraceous; the flagellum of the antennae beneath, and the apical joints of the tarsi, ferruginous; the mandibles ferruginous at their apex. The wings hyaline and iridescent; the nervures testaceous; the costal nerve and the stigma fuscous. The apical margins of the segments of the abdomen with white pubescent fasciae, that on the basal segment being the narrowest.

Hab.—Northern India.

*7. *Nomia terminata*.

Female.—Length $5\frac{1}{2}$ lines. Black: wings fulvo-hyaline, with a dark-fuscous cloud at the apex of the anterior pair extending from the apex of the marginal cell. Head and thorax very closely punctured, the clypeus more coarsely so; the flagellum, except the three basal joints, fulvous beneath. The entire pubescence fulvous; the tegulae of

the wings rufo-testaceous; the abdomen smooth, shining, and very delicately punctured; slightly pubescent at the base.

Hab.—Birmah.

This species would in all probability have a thin pubescence both on the thorax and abdomen if in the finest condition. The unique example was collected in spirit.

8. *Nomia carinata.*

Female.—Length $3\frac{1}{2}$ lines. Black: the head and thorax closely punctured, the head most finely so; the clypeus with a central longitudinal carina; its lateral margins being also slightly raised. The flagellum fulvous beneath; the pubescence on the face and cheeks cinereous. Thorax: the post-scutellum with pale tomentum; the pubescence on the sides, beneath, and on the legs, cinereous; the femora, tibiæ and tarsi ferruginous; the anterior and intermediate tibiæ and tarsi, and also the posterior tarsi, rufo-piceous above; the wings hyaline, the nervures dark fusco-ferruginous, the outer margin of the tegulæ pale testaceous. Abdomen: the apical margin of all the segments white, with tints of green in certain lights; beneath, the margins of the segments fringed with pale-fulvous pubescence.

Hab.—Ceylon.

*9. *Nomia albofasciata.*

Female.—Length $4\frac{1}{4}$ lines. Black: the abdomen with a white fascia on the apical margin of the first and three following segments. Head: the front and cheeks with cinereous pubescence; the thorax densely clothed above with short, ochraceous pubescence, that on the legs is of a silvery whiteness, except that on the tarsi beneath, which is bright fulvous; the flagellum, except the first joint, fulvous beneath; wings hyaline, the nervures fuscous, the tegulæ pale rufo-testaceous. Abdomen very finely and closely punctured at the base; the two apical segments with short rufo-fulvous pubescence.

Hab.—Java.

*10. *Nomia fuscipennis.*

Female.—Length 5 lines. Black: head closely and finely punctured, opaque; abdomen shining, the base with a few distant fine punctures, the other portion finely and

closely punctured; the face with a thin griseous pubescence; the clypeus coarsely punctured; the flagellum of the antennæ fulvous beneath. Thorax: the post-scutellum and sides of the metathorax with white pubescence; the general pubescence on the legs griseous, a dense floccus on the posterior femora beneath; the apical joints of the tarsi ferruginous, their pubescence beneath fulvous; wings fusco-hyaline, a darker cloud along their anterior margin, and occupying the apex of the anterior wing beyond the third submarginal cell. Abdomen: a thin griseous pubescence at the extreme base, and on the sides and beneath.

Hab.—Sumatra.

From Sir Stamford Raffles' Collection.

*11. *Nomia quadridentata*. (Pl. II. fig. 6, ♂.)

Female. Length 5 lines. Black: the pubescence pale fulvous, the abdomen with four blue-green or greenish-yellow fasciæ. Head and thorax finely shagreened; the clypeus rugose and with a longitudinal carina; the posterior margin of the mesothorax and the post-scutellum with dense, short, pale pubescence; on the sides of the metathorax it is long and dense; the posterior femora thickly fringed beneath, and the entire pubescence of the legs pale fulvous, very bright and glittering; the wings subhyaline, the nervures fusco-ferruginous, the stigma and costal nervure darkest; the apical margins of the wings faintly clouded; the tegulæ pale testaceous. Abdomen very finely and closely punctured, the base with a thin fulvous pubescence.

Male.—The same length as the female; the pubescence on the face cinereous; the scutellum, mesothorax and base of the abdomen more strongly punctured than in the female; the scutellum with a minute spine at its posterior lateral angles, the post-scutellum having two longer ones; the posterior femora greatly swollen and with a cinereous fringe beneath; the tibiæ more or less obscurely ferruginous, curved, and terminating in a pale-ferruginous process beneath, which is rounded at its apex. Abdomen with four fasciæ varying in colour, as in the female.

Hab.—Celebes; Java; Morty Island.

*12. *Nomia floralis*.

Female.—Length $3\frac{1}{2}$ lines. Black: the base of the abdomen ferruginous. Head: the front and cheeks with

griseous pubescence. Thorax finely and closely punctured above; the margins of the mesothorax and the post-scutellum with short, pale, fulvous pubescence, that on the legs is still paler, and very bright and glittering; the legs rufo-piceous, the tarsi paler; wings subhyaline, their apical margins clouded, the nervures and tegulæ rufo-testaceous, the stigma pale. Abdomen: the basal segment and apical half of the second ferruginous; the apical margin of the second and following segments with fasciæ of pale-fulvous pubescence.

Hab.—Hong Kong.

*13. *Nomia opposita*.

Female.—Length $4\frac{1}{2}$ lines. Black; the head, mesothorax and scutellum very finely and closely punctured; the metathorax coarsely rugose. Head: the front thinly covered with cinereous pubescence, the clypeus fringed with fulvous hairs at its anterior margin. Thorax: its pubescence cinereous, on the tibiæ and tarsi exteriorly it is fuscous; wings hyaline and iridescent, faintly clouded at their apical margins, the nervures dark fuscous. Abdomen slightly shining, very finely and closely punctured; a pale-pubescent, narrow fascia at the basal margins of the second, third and fourth segments.

Hab.—North China.

*14. *Nomia chalybeata*. (Pl. II. fig. 5, ♂).

Female.—Length $5\frac{1}{2}$ lines. Head and thorax black; the abdomen obscurely chalybeous in the female, and brightly so in the male. Head: the front with a thin cinereous pubescence, on the cheeks it is more dense; the clypeus rough, with confluent punctures, and having a longitudinal carina; the flagellum of the antennæ, except the first joint, fulvous beneath. Thorax closely punctured above, and with more or less of fulvous pubescence; the legs have a pale-fulvous, glittering pubescence; the apex of the claw-joints ferruginous; wings subhyaline, faintly clouded at the apex of the superior pair, the nervures ferruginous. Abdomen closely punctured, most strongly so at the base; the second and two following segments have a narrow green or blue-green fascia on their apical margins; the three terminal segments with short black pubescence, which is most dense on the apical one.

Male.—The same size as the female, the abdomen being

rather more strongly and closely punctured towards the base; it has also an additional band on the abdomen, the fasciæ being in some examples greenish-yellow; the posterior femora incrassate, the tibiæ curved and produced at their apex within into a thin, pale-testaceous process, which is truncate at the apex.

Hab.—Shanghai, N. China.

*15. *Nomia Australica*. (Pl. II. fig. 11, ♂.)

Female.—Length $4\frac{1}{4}$ —5 lines. Head and thorax black, abdomen steel-blue. Head: the scape of the antennæ, the flagellum beneath and the anterior margin of the clypeus ferruginous, the scape sometimes fuscous behind; the front and vertex with pale-fulvous pubescence, that on the cheeks cinereous. Thorax: very delicately punctured above, and with distant stronger punctures interspersed; the pubescence on the sides, beneath, and on the legs, cinereous; the post-scutellum with short white pubescence; wings subhyaline, faintly clouded at their apical margins; the exterior margins of the tegulæ more or less testaceous. Abdomen: very finely and very closely punctured; the third and fourth segments with pubescent fasciæ, more or less fulvous on their apical margins; sometimes a more or less interrupted fascia on the second segment, but usually obsolete.

Male.—Bears a strong resemblance to the female, but narrower, the abdomen being narrowed towards its base; the antennæ as long as the head and thorax; the apex of the clypeus, and also the mandibles pale testaceous. The posterior femora swollen, the tibiæ dilated at their apex, and produced beneath into a truncate process.

This appears to be the most abundant species found in Australia. It not only varies in the colour of its pubescence from age, but also apparently from the locality it inhabits, specimens from Adelaide being the most highly coloured that I have seen.

Hab.—Adelaide; Port Philip; Moreton Bay; Swan River; Champion Bay.

*16. *Nomia mærens*.

Female.—Length $4\frac{1}{2}$ lines. Black: very closely and finely punctured, except the clypeus, which is coarsely punctured; the pubescence cinereous, except that on the tarsi beneath, which is bright fulvous. The antennæ

slightly fulvous towards their apex beneath. Thorax: the wings sub-hyaline, slightly clouded at their apical margins; the pubescence on the posterior legs very bright and glittering. The apical margins of the second, third and fourth segments of the abdomen with narrow, white-pubescent fasciæ, frequently more or less interrupted; at the extreme apex it is fusco-ferruginous.

Hab.—Australia.

Nomia generosa is probably the male of this species.

*17. *Nomia generosa*.

Male.—Length $4\frac{1}{4}$ lines. Black: closely and finely punctured; the tibiæ and tarsi bright ferruginous. Head: the front and cheeks with cinereous pubescence; antennæ as long as the head and thorax. Thorax: the pubescence on the thorax and legs cinereous; wings hyaline at their base, their apical half slightly fuscous, the nervures and tegulæ ferruginous; the scutellum bituberculate: the post-scutellum with white pubescence; the posterior femora and tibiæ not enlarged. Abdomen: the apical margins of the second and following segments with narrow, white-pubescent fasciæ; beneath rufo-piceous.

Hab.—Moreton Bay.

*18. *Nomia gracilipes*.

Female.—Length $3\frac{3}{4}$ lines. Head and thorax black; abdomen blue, with the apex ferruginous. Head: the front and the cheeks with griseous pubescence; the flagellum of the antennæ bright fulvous beneath. Thorax: the sides, beneath, and the legs, with griseous pubescence; the meso-thorax with two ovate spots of white pubescence posteriorly at the margin of the scutellum; the post-scutellum with white pubescence; wings hyaline, with their apical margins slightly fuscous. Abdomen: a little white pubescence on the apical margins of the first, second and third segments laterally.

Male.—As long as the female, and similarly coloured; the apex of the clypeus pale testaceous; antennæ as long as the head and thorax; the flagellum bright fulvous beneath; the thorax as in the female; in fine examples, the white spots of pubescence frequently obliterated: the posterior legs simple, or very slightly swollen. Abdomen oblong, with white spots, as in the female.

Hab.—Adelaide.

A number of specimens have been examined, not one being in very fine condition. It is probable that the thorax would have been more pubescent, and the margins of the segments have had more complete fasciæ, had specimens in fine condition been available.

19. *Nomia nana*.

Female.—Length $3\frac{1}{2}$ lines. Black: the coxæ, trochanters and femora rufo-piceous; the tibiæ and tarsi ferruginous; abdomen with broad, yellowish-white pubescent fasciæ on the second and following segments, the first having a little pubescence laterally; at the extreme apex of the abdomen a little fulvous pubescence. The face with a thin griseous pubescence; the flagellum fulvous beneath, except one or two of the first joints. Thorax: the wings subhyaline, their apical margins slightly clouded; the nervures and tegulæ pale ferruginous; the post-scutellum with pale pubescence.

Hab.—Adelaide.

*20. *Nomia ruficornis*. (Pl. II. fig. 7, ♂.)

Male.—Length $3\frac{1}{2}$ lines. Black: the flagellum of the antennæ ferruginous, and also the apex of the femora, the tibiæ and tarsi; the abdomen with cinereous fasciæ on the apical margins of the second and following segments. Head: the face with cinereous pubescence; the apex of the clypeus rufo-testaceous; the wings hyaline, faintly clouded at their apical margins; the nervures ferruginous; the tegulæ rufo-testaceous; the posterior femora swollen; the tibiæ broadly dilated. Abdomen oblong-ovate.

Hab.—Sydney.

*21. *Nomia dentiventris*. (Pl. II. fig. 15, ♂.)

Male.—Length 4 lines. Black: the abdomen with pale-fulvous pubescent fasciæ; the posterior femora dilated, and the third ventral segment with two blunt teeth. Head: the front with pale fulvous pubescence; that on the cheeks cinereous, and that on the vertex fuscous. Thorax: thinly covered with short fuscous pubescence above; on the sides, beneath and on the legs it is cinereous; wings hyaline and iridescent, faintly clouded at their apical margins; the nervures fusco-ferruginous; the tegulæ dark rufo-testaceous; legs rufo-piceous, with the tibiæ, tarsi

and apex of the femora ferruginous; the posterior femora swollen; the tibiæ dilated and abruptly narrowed at their base. Abdomen oblong.

Hab.—Sydney.

22. *Nomia ærata*.

Male.—Length $3\frac{1}{4}$ lines. Of a brassy colour; the head and thorax obscurely so. Head: the flagellum of the antennæ, the anterior margin of the clypeus and the mandibles, except their extreme base, rufo-fulvous; the face with glittering cinereous pubescence. Thorax: a little cinereous pubescence on the sides of the metathorax; a thin similar pubescence beneath, on the sides and on the legs; the legs ferruginous; the femora rufo-piceous above; the posterior femora slightly swollen; the tibiæ dilated at their apex; wings hyaline; their nervures and tegulæ rufo-testaceous. Abdomen bright and brassy, with the apical margins of the segments depressed; beneath rufo-piceous, with an æneous tinge.

Hab.—Australia.

*23. *Nomia ænea*. (Pl. II. fig. 13, ♂.)

Male.—Length 4 lines. Obscurely æneous; the coxæ and femora rufo-piceous; the tibiæ and tarsi ferruginous. Head as wide as the thorax; the flagellum, except the first joint, fulvous beneath; the apical margin of the clypeus and the mandibles ferruginous; the front with cinereous pubescence. Thorax closely punctured; the wings hyaline; nervures fusco-ferruginous; the posterior femora and tibiæ swollen; the apical margins of the second and following segments with pale-fulvous pubescence.

Hab.—Port Essington.

*24. *Nomia Nilotica*.

Female.—Length 4 lines. The mandibles, antennæ, legs, thorax beneath, and base of the abdomen ferruginous; otherwise black. Head: the front densely covered with short snow-white pubescence; the anterior margin of the thorax with white tomentum; the legs have, outside, a glittering white pubescence; the wings hyaline, the nervures ferruginous; the tegulæ large and white, with a ferruginous spot at their inner anterior margin. Abdomen with broad, white-pubescent fasciæ.

Hab.—White Nile.

The fasciæ are abraded in some degree in the unique specimen, but enough remains to show that all, except perhaps the first segment, had entire fasciæ when the insect was in perfect condition.

25. *Nomia rufipes*. (Pl. II. fig. 3, ♂.)

Male.—Length $3\frac{3}{4}$ lines. Black: the legs, flagellum and mandibles pale ferruginous; the pubescence pale fulvous, except that on the cheeks, which is cinereous. Thorax with short pubescence above; the wings fulvo-hyaline, the nervures and tegulæ pale ferruginous; the legs have the coxæ and trochanters black; the posterior femora swollen and with a stout tooth beneath; the tibiæ curved, dilated at their apex, and with a small acute tooth in the middle of their inner margin. Abdomen very finely and closely punctured, pubescent, with the apical margins of all the segments testaceous, and with fasciæ of pale-fulvous pubescence.

Hab.—Gambia.

*26. *Nomia tridentata*. (Pl. II. fig. 10, ♂.)

Male.—Length $3\frac{1}{2}$ lines. Black, pubescent; the posterior femora very greatly swollen and pubescent, with three sharp teeth or spines beneath, the third, near their apex, being the smallest. Head: the face with bright pale yellowish-white pubescence, that on the cheeks cinereous; the flagellum of the antennæ fulvous beneath. Thorax clothed above with dull fulvous pubescence, beneath and on the legs it is pale fulvous; the legs rufopiceous; the tarsi pale; the posterior femora palest beneath; the tibiæ curved, and produced at their apex beneath into a long, pale-testaceous process, somewhat lanceolate in form; wings hyaline and iridescent, the nervures rufo-testaceous. Abdomen ovate and pubescent, that at the base cinereous, the rest fulvous; the apical margins of the segments, except the basal one, testaceous; beneath, the segments towards the apex with long, dense cinereous pubescence.

Hab.—Cape of Good Hope; Gambia.

This species is somewhat like *Nomia vulpina*, Gerst., described and figured in Reis. Mossamb. (Peters), but it is a smaller insect, its pubescence of a different colour, and its abdomen and posterior legs of a different form.

27. *Nomia rubella*. (Pl. II. fig. 17, ♂.)

Male.—Length 5 lines. Head and thorax black; abdomen red. Head and thorax closely and strongly punctured; the front of the head clothed with griseous pubescence. The mesothorax with a central impressed line and an abbreviated one on each side of it; the scutellum depressed in the middle and subtuberculate on each side; wings fuscous and with a violet iridescence; the posterior femora and tibiæ punctured, the former greatly swollen, and with a minute tooth beneath near their apex; the tibiæ narrow at their base to one-third of their length, then abruptly dilated, and having a minute tooth beneath near their apex; the tarsi ferruginous at their base. Abdomen black at its extreme base, rather strongly and very closely punctured; the apical margins of the segments smooth and shining; the apex with fuscous pubescence.

Hab.—Gambia.

28. *Nomia lamellata*. (Pl. II. fig. 8, ♂.)

Female.—Length $5\frac{1}{2}$ lines. Black: the legs ferruginous; abdomen with four white, or pale-yellow fasciæ. Head: the antennæ and mandibles ferruginous; the front with pale bright pubescence, that on the cheeks white. Thorax: the pubescence at the margins of the mesothorax pale fulvous, on the sides and beneath it is nearly white; wings subhyaline, the nervures and tegulæ ferruginous; on each side of the scutellum is a thin, short, projecting, pale-testaceous lamella, and another, the width of the post-scutellum, projects from its base, and is deeply notched in its posterior margin. Abdomen: the apical margins of the first and three following segments with pale-yellow fasciæ, sometimes cream-coloured, the first being the narrowest.

Male.—Greatly resembles the female, but has an additional fascia on the abdomen, and has the posterior femora much swollen; the tibiæ swollen and greatly dilated, and produced at their apex beneath into a long pointed process; at their base above is a little snow-white pubescence.

Hab.—Gambia; Egypt.

*29. *Nomia cinerascens*.

Male.—Length $2\frac{3}{4}$ lines. Black, and thinly covered with cinereous pubescence, that on the face being pale golden. The flagellum of the antennæ fulvous, except the basal joint, and slightly fuscous above. Thorax: the post-scutellum with short, white pubescence; the wings hyaline and brightly iridescent; the nervures pale testaceous; the anterior tibiæ in front and all the tarsi pale rufo-testaceous; the posterior femora not dilated. Abdomen gradually widened to the apex, which is pale testaceous, the margins of the segments depressed, somewhat testaceous, and with pale pubescent fasciæ.

Hab.—Natal.

*30. *Nomia producta*. (Pl. II. fig. 16, ♂.)

Male.—Length $5\frac{1}{2}$ lines. Black: the pubescence cinereous; the clypeus greatly produced forwards, to nearly half the length of the head, its apex, as well as the labrum, white. Thorax: the wings hyaline, with a darkish-fuscous cloud beyond the enclosed cells, which extends to their apical margins; the legs obscure fusco-ferruginous; the posterior femora slightly dilated; the tibiæ curved, widened at their apex, which is produced into an elongate, pale-testaceous, scale-like process. Abdomen elongate and widened towards its apex, covered with a slightly fulvous pile, the apical margins of the segments with bright silvery-white fasciæ, observable in certain lights, the margins being narrowly testaceous.

Hab.—Natal.

*31. *Nomia serratula*.

Male.—Length $3\frac{3}{4}$ lines. Black: the apical margins of the segments of the abdomen bright rufo-testaceous; the entire insect closely and strongly punctured. Head, below the insertion of the antennæ, covered with cinereous pubescence. Thorax: the legs obscurely rufo-piceous, the tarsi palest; a cinereous pubescence on the legs as well as on the thorax beneath and on the sides; the posterior legs not swollen, their tibiæ serrated exteriorly; wings subhyaline at their base, with a fuscous cloud beyond the stigma, and brightly iridescent; the nervures

fuscous, the tegulæ black. Abdomen: the apical margins much depressed; beneath rufo-testaceous.

Hab.—Natal.

This species varies in the colouring of the abdomen from that described to being ferruginous with only the basal segment, or with that and a dark stain in the middle of the second, black.

*32. *Nomia rufitarsis*.

Male.—Length 3 lines. Black, closely punctured, tarsi pale ferruginous, abdomen with three snow-white fasciæ. Head: the face covered with cinereous pubescence; the flagellum of the antennæ fulvous beneath. Thorax: the pubescence on the sides, beneath and on the legs cinereous; the scutellum bituberculate, the post-scutellum with white pubescence, wings hyaline and iridescent, nervures fuscous; the tegulæ testaceous, posterior legs simple. Abdomen: the apical margins of the second, third and fourth segments white; the margin of the basal segment fringed laterally with griseous pubescence.

Hab.—Angola Country (Africa).

*33. *Nomia armata*. (Pl. II. fig. 14, ♂.)

Male.—Length 5 lines. Black: the pubescence fulvous, more or less bright; the posterior femora and tibiæ enlarged, and armed with a short tooth. Head covered below the insertion of the antennæ with bright pale-fulvous pubescence; the flagellum of the antennæ fulvous beneath; the mandibles pale ferruginous. Thorax densely clothed above with short fulvous pubescence; wings subhyaline, slightly clouded at their apex, the nervures ferruginous; the anterior and intermediate tarsi, tibiæ and femora, except the base of the latter, and the posterior femora (at their apex), tibiæ and tarsi, fulvo-ferruginous; the posterior femora greatly swollen, and with an acute tooth in the middle of their inferior margin; the tibiæ curved, dilated towards their apex, with an acute tooth beneath, and produced at their apex into a pointed process. Abdomen closely and finely punctured, the apical margins of the segments testaceous and with fasciæ of pale-fulvous pubescence.

Hab.—Sierra Leone.

*34. *Nomia fulvohirta*.

Female.—Length $4\frac{1}{2}$ lines. Black: the pubescence fulvous, that on the face being paler than the rest; on the metathorax it is also pale; on the mesothorax it is short and dense; the apical margins of the second and following segments of the abdomen with pubescent fasciæ. The flagellum bright fulvous beneath; the mandibles ferruginous at their base; the wings hyaline, their nervures rufo-testaceous, as well as the tegulæ, the costal nervure fuscous. The base of the abdomen very finely and closely punctured.

Male.—Rather smaller than the female, which it greatly resembles; the face with bright fulvous pubescence; the antennæ ferruginous, with the flagellum more or less fuscous above. Wings as in the female; the legs bright pale ferruginous, the coxæ and trochanters rufo-piceous; the posterior femora not swollen. The two basal segments of the abdomen finely and closely punctured.

Hab.—Sierra Leone.

*35. *Nomia candida*.

Female.—Length $3\frac{1}{4}$ lines. Black: the abdomen with three yellowish-white fasciæ. Head: the front with short cinereous pubescence. Thorax densely clothed above with very short fulvous pubescence, that on the post-scutellum nearly white; the legs rufo-piceous; the apical joints of the tarsi palest; the tibiæ and tarsi with glittering cinereous pubescence. Abdomen: the apical margin of the first segment with a narrow, lateral, whitish-pubescent fascia, the apical margins of the following segments white, faintly tinged with yellow, not pubescent.

Hab.—Sierra Leone.

*36. *Nomia nubecula*.

Male.—Length 4 lines. Black: the pubescence fulvous, the tibiæ and tarsi pale ferruginous; the anterior wings hyaline, with a dark cloud at their apex, commencing at the apex of the third submarginal cell. Head anteriorly clothed with short, bright, pale-fulvous pubescence; the mandibles ferruginous; the scape, and the flagellum, fulvous beneath. Thorax above closely punctured; the scutellum bituberculate; the tegulæ not enlarged, and rufo-testaceous; the posterior femora and

tibiæ simple. Abdomen shining, slightly punctured at the base, more closely and strongly so beyond; the apical margins of the segments narrowly testaceous, and fringed with pale-fulvous pubescence.

Hab.—Sierra Leone.

This species would probably have the mesothorax and scutellum covered with short, fulvous pubescence, in very recently disclosed specimens.

*37. *Nomia tegulata*.

Female.—Length $2\frac{1}{2}$ — $3\frac{1}{4}$ lines. Black, and thinly covered with short cinereous pubescence, that on the tarsi and posterior tibiæ pale fulvous. Head: the flagellum fulvous beneath towards the apex; the clypeus rather strongly and closely punctured. Thorax: the metathorax smooth, with the sides punctured; wings hyaline, with their apical margins clouded, the nervures testaceous, the tegulæ large and pale testaceous, having anteriorly a rufous spot; the posterior tibiæ and all the tarsi pale ferruginous. Abdomen: at the basal margins of the segments a fascia of pale pubescence, over which is a thin fringe of pale-fulvous hairs on the apical margins.

Hab.—Sierra Leone.

*38. *Nomia Kirbyi*. (Pl. II. fig. 19, 20, ♂.)

Male.—Length $6\frac{1}{2}$ lines. Black: the pubescence sooty-black, the antennæ elongate, reaching to the posterior margin of the scutellum, the apical joint club-shaped and compressed; the wings dark fuscous, the apical margins of the segments of the abdomen obscurely testaceous.

Hab.—Brazil, or Mexico.

This insect, which is, I believe, unique in the British Museum, is in a very bad state of preservation, so much so as to render it quite possible that its original colouring was very different to that it at present exhibits; the abdomen had probably fulvous fasciæ, and the face and sides of the metathorax might also have had fulvous pubescence. An examination of a perfect specimen would, I believe, prove that it belongs to a new genus. It was formerly in the collection of the Rev. Wm. Kirby, who attached a memorandum to it: “Gen. nov. inter *Andrena* et *Panurgus*.”

DESCRIPTION OF PLATE II.

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1. Posterior leg of *Nomia diversipes*, ♂.
 2. " " *difformis*, ♂.
 3. " " *rufipes*, ♂.
 4. " " *simillima*, ♂.
 5. " " *chalybeata*, ♂.
 6. " " *quadridentata*, ♂.
 7. " " *ruficornis*, ♂.
 8. " " *lamellata*, ♂, and the scutellum.
 9. " " *combusta*, ♂.
 10. " " *tridentata*, ♂.
 11. " " *australis*, ♂.
 12. " " *fervida*, ♂.
 13. " " *ænea*, ♂.
 14. " " *armata*, ♂.
 15. " " *dentiventris*, ♂.
 16. " " *producta*, ♂.
 17. " " *rubella*, ♂.
 18. " " *clypeata*, ♂.
 19. Antenna of " *Kirbii*, ♂.
 20. Posterior leg of " " ♂.